UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

August 18, 2008

Mike Donald
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Subject: Draft Environmental Impact Statement for the Moonlight and Wheeler Fires Recovery and Restoration Project (CEQ# 20080251)

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the above project. Our review and comments are pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our comments are provided in accordance with the EPA-specific extension of the comment deadline date from August 11, 2008 to August 18, 2008 granted by Katherine Carpenter, Planner, Mt. Hough Ranger District on July 9, 2008. We appreciate the additional time to review the DEIS.

The Proposed Action would harvest fire-killed trees on 15,568 acres in areas severely burned by the Moonlight and Wheeler fires. Thirty-three miles of temporary roads and 14 temporary helicopter landings would provide access. The DEIS states that the fires were severe, resulting in a loss of vegetative cover, highly erodible soils, and loss of important aquatic features such as large woody debris. Seventeen out of twenty-three watersheds are over the threshold of concern for cumulative watershed effects as a result of the fires.

EPA supports the effort to rehabilitate the fire-damaged watersheds as soon as possible. We acknowledge the need to reforest in order to stabilize the soil and prevent soil losses from debris flows and mudflows. We also understand the desire to harvest fire-killed trees while there is sufficient timber value to fund needed restoration efforts. However, based on our review, we have rated the project and DEIS as Environmental Objections - Insufficient Information (EO-2). A *Summary of EPA Rating Definitions* is enclosed.

EPA objects to the scale of the project, especially the number of temporary roads, given the already highly damaged condition of the watersheds and the poor quality of the DEIS. There are many problems with the DEIS--conclusions are often not supported with data or understandable explanations, specific information on existing conditions is lacking or scattered, tables and data do not contain keys or explanations, there are many typographical and formatting errors, and information is not consistent or clear. As a

result, it is very difficult to ascertain the validity of conclusions made or the accuracy of the environmental analysis.

We recommend development of an alternative that minimizes adverse impacts to damaged watersheds. One option may be to harvest timber stands with the highest economic value in watersheds with the least susceptibility to erosion and sedimentation from logging activities. We recommend the final environmental impact statement (FEIS) be written in a manner that clearly describes the existing conditions and environmental effects of the proposed action. Conclusions should be supported with data and understandable explanations, and tables and data clearly explained.

We appreciate the opportunity to review this DEIS. We are available to discuss our comments. When the FEIS is released for public review, please send one hard copy to the address above (mail code: CED-2). If you have any questions, please contact Laura Fujii, the lead reviewer for this project, at (415) 972-3852 or fujii.laura@epa.gov, or me at (415) 972-3521.

Sincerely,

Kathleen M. Goforth, Manager
Environmental Review Office

Enclosures:
Summary of EPA Rating Definitions
Detailed Comments

cc: Central Valley Regional Water Quality Control Board
Northern Sierra Air Quality Management District

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

US EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE MOONLIGHT AND WHEELER FIRES RECOVERY AND RESTORATION PROJECT, PLUMAS CO., CA, AUGUST 18, 2008

Alternatives

Develop an alternative that minimizes adverse impacts to damaged watersheds. Table 42 (p. 66) shows that Lower Lone Rock Creek, West Branch Light Creek, and Lower Indian Creek are well above the Threshold of Concern (TOC) for Cumulative Watershed Effects (CWE), with very high to extreme risk of cumulative effects. The West Branch Lights Creek watershed is expected to change from very high to extreme CWE as a result of the proposed logging activity (p. 66). The DEIS further states that seventeen out of twenty-three watersheds are over the threshold of concern for cumulative watershed effects as a result of the fires (p.105). EPA objects to the scale of proposed temporary road construction and harvest activities in watersheds that are already highly disturbed and at high risk of cumulative effects.

> ***Recommendations:***
> While EPA recognizes the need for reforestation to rapidly reduce the risk of erosion and sedimentation, we recommend development of an alternative that minimizes adverse impacts to damaged watersheds. One option may be to harvest timber stands with the highest economic value in watersheds with the least susceptibility to erosion and sedimentation. Another option may be to harvest only from units accessible from existing roads. Yet another approach, as stated in the DEIS (p. 25), is to provide flexibility in the timber sale contract for adjustments to the skyline and helicopter units treated, in order to optimize the balance between environmental protection and an economically viable salvage sale.
>
> We urge careful consideration of the quantity and location of temporary roads, landings, and skid trails in order to minimize adverse effects on water quality and watersheds already at high risk of CWE. We recommend the final environmental impact statement (FEIS) include information supporting both the proposed siting of roads and landings and the conclusion that proposed activities would not result in significant adverse effects. For example, the DEIS states that roads are a minor source of CWE (p. 106), but fails to provide the basis for this statement. The FEIS should describe the existing conditions and data underlying its conclusions.

Describe the rationale for selection of Alternative A as the preferred alternative. Alternative A, the preferred alternative, would provide more jobs, income, and timber volume, but is marginal, economically, because costs would be 5% below net revenues from the sale of fire-killed trees (p. iv). Much of the cost is a result of the extensive helicopter-based harvesting proposed. Conversely, Alternative C is cost effective because it eliminates helicopter and skyline harvesting methods and reduces the acres harvested.

Recommendations:
We recommend the FEIS describe the criteria and rationale for selection of the preferred alternative. We also recommend evaluating different combinations of treatment practices (ground-based, skyline, helicopter harvesting methods), intensity and acreage of harvested areas, and number of miles of temporary roads and landings, in order to design alternatives which may more effectively achieve the project purpose, need, and objectives.

Existing and Proposed Roads and Landings

Describe the condition of existing roads and the environmental effects of existing and temporary roads and landings. The DEIS lacks information on existing roads, the condition of these roads, the need for 33 miles of temporary roads and 14 landings, and potential adverse affects of construction of such facilities. EPA has frequently expressed concerns with potential water quality impacts wildlife habitat fragmentation, and noxious weed proliferation caused by the existing road system, its use, and new road construction. Alternative A, the Proposed Action and preferred alternative, would construct thirty-three miles of temporary roads and 14 temporary helicopter landings. EPA objects to this level of road and landing construction, especially given the already highly damaged condition of the watersheds and the lack of information regarding the current condition and future effects of existing and proposed roads.

Recommendations:
We recommend the FEIS describe the condition of existing roads, the data and rationale underlying the need for 33 miles of temporary roads and 14 landings, and the environmental effects of existing roads and temporary road and landing construction. We recommend temporary roads and landings be carefully placed to minimize adverse effects on already unstable slopes and soils.

Provide a closure and restoration plan for the proposed temporary roads and landings. Although the DEIS states that temporary roads and landings would be closed following the completion of harvest (p. 15), there is no detailed information provided on when or how this closure would occur.

Recommendation:
We recommend the FEIS provide a detailed closure and restoration plan for the proposed temporary roads and landings. This plan should include specific information on whether these roads and landings would be recontoured, replanted with appropriate vegetation, monitored, and closed to off-highway vehicle use. We recommend the FEIS include a specific post-harvest schedule for closure of the temporary roads and landings.

Livestock Grazing

Consider temporary adjustment of livestock management practices to encourage watershed recovery. The DEIS states there are no plans to adjust livestock numbers, season of use, nor distribution in the nine active livestock grazing allotments within the

fires' perimeter. There would be no rest period, nor allowance for a non-grazed growing season, after the fires (p. 126). The description of existing conditions indicates that the fires severely burned the area, leaving little remaining vegetation cover. Thus, the area is highly susceptible to erosion and sedimentation into stream channels. EPA is concerned about the potential significant adverse effects to water quality and channel recovery from continued livestock grazing in high severity burn areas.

Recommendations:
We understand that rangeland management is not a part of the current salvage harvest and restoration action. However, given the severely damaged watersheds, we recommend a temporary closure of specific allotments, readjustment of livestock numbers, or adjustment of use levels, within high severity burn areas, to encourage more rapid watershed recovery. We recommend the FEIS describe the livestock management practices which could be or are being implemented to encourage watershed recovery.

Air Quality

Include an air conformity determination in the FEIS, if applicable. Plumas County is in non-attainment status for particulate matter less than or equal to 10 micrometers (PM_{10}) and particulate matter less than or equal to 2.5 micrometers ($PM_{2.5}$) (Portola Valley only) (p. 30). Data in Table 20 (p.38) appear to indicate smoke production from pile burning may result in particulate matter emissions greater than the General Conformity *de minimis* threshold of 100 tons per year (Table 20 does not state whether the data are for a year or not). Furthermore, the DEIS does not appear to evaluate the potential particulate emissions generated by log hauling, harvest activities, temporary road and landing construction, or equipment emissions.

Recommendations:
We recommend the FEIS include a General Conformity Determination, if applicable. General Conformity requirements may be found in 40 CFR Chapter 1 (7-1-00 Edition) Part 93 Subpart B.

We recommend the FEIS include an evaluation of the potential emissions generated by log hauling, harvest activities, temporary road and landing construction, and equipment emissions.

We recommend aggressive implementation of all feasible mitigation measures to address anticipated exceedences of air quality standards. The FEIS should include a detailed smoke management plan describing Northern Sierra Air Quality Management District regulations for pile burning and smoke management, an implementation schedule, the responsible parties, and monitoring and reporting requirements.

Naturally Occurring Asbestos

Limit exposure to naturally occurring asbestos. Serpentine and other soils in the Sierra Nevada of California have been found to contain chrysotile and amphibole asbestos. Very low levels of asbestos in soil can generate airborne asbestos at hazardous levels.

> ***Recommendations:***
> It is important to protect human health by limiting exposure to naturally occurring asbestos. We recommend that the Forest Service determine whether naturally occurring asbestos may be a management issue for this salvage harvest by reviewing the asbestos occurrence information on the California Geological Survey website at:
> http://www.consrv.ca.gov/cgs/minerals/hazardous_minerals/asbestos/index.htm
> and the California Air Resources Board (CARB) regulations and guidance at http://www.arb.ca.gov/toxics/asbestos/asbestos.htm. The CARB website addresses California's Asbestos Airborne Toxic Control Measures for Surfacing Applications, which apply to unpaved roads.
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> The Forest Service should also review the results and road surfacing recommendations in the Department of Toxic Substances Control report "Study of Airborne Asbestos From A Serpentine Road in Garden Valley, California" (April 2005) at:
> http://www.dtsc.ca.gov/loader.cfm?url=/commonspot/security/getfile.cfm&pageid=33546.

Quality of the Document and Evaluation

Provide specific information on existing conditions, include a more rigorous evaluation of effects, and support conclusions with data and explanations. The DEIS is of poor quality, which makes it very difficult to ascertain the validity of the conclusions and the accuracy of the environmental analysis. Problematic features of the DEIS include: 1) conclusions are often not supported with data or understandable explanations; 2) specific information on existing conditions is lacking or scattered; 3) tables and data do not contain keys or explanations; 4) there are many typographical and formatting errors; and 5) information is not consistent or clear. A specific example is the conclusion that 54,044 logging-related trips would contribute to a negligible increase in traffic in the communities of Indian and American Valleys, which is presented without any description of existing traffic volumes or road conditions within these communities (pps. 25 to 26).

> ***Recommendations:***
> We recommend the FEIS include: 1) specific data on existing conditions in the analysis area for all relevant resources and factors (e.g., traffic, noise, air quality, water quality, ecosystem health), and 2) a more rigorous evaluation of potential effects. In addition, conclusions should be supported with data and understandable explanations. We also recommend the FEIS describe the underlying assumptions, field data, and models used to generate data tables; explain what the tables are illustrating; and clearly state the conclusions drawn from the tables.

Provide information on existing economic conditions of Plumas County and local communities. A primary purpose of the project is to contribute to the stability and economic health of rural communities (p. 2). In spite of this purpose, the DEIS does not provide any information on the economic conditions of Plumas County or the region, the importance of timber-related revenue and jobs for the local communities, other sources of revenue, nor employment data. Without information regarding the economic conditions of the region and local communities, it is not possible to determine the economic need for the proposed action.

> ***Recommendation:***
> We recommend the FEIS include specific information regarding the economy of the region and Plumas County, the importance of timber-related revenues and jobs for local communities, and employment and income data. Employment, income, and economic data may be obtained from the US Census, US Bureau of Labor Statistics, Plumas County, or other sources, such as the Center for Economic Development, Chico Research Foundation, California State University.[1]

Climate Change

Describe climate change and its effects on successful reforestation. The potential for climate change is now considered a significant possibility. Current research estimates that climate change could change the amount, timing, and intensity of rain and storm events; increase the length and severity of the fire season; modify the rate and distribution of harmful timber insects and diseases; and aggravate already stressed water supplies. A significant change in the weather patterns of our region could have important implications for how we manage our forests.

> ***Recommendation:***
> We recommend the FEIS include a description of climate change and its implications for successful reforestation. For example, describe and evaluate projected climate change consequences such as frequency of high intensity storms, and amplified rain events and the severity and frequency of insect outbreaks, droughts, and fire seasons, and their effects on the success of reforestation efforts.

[1] Reference obtained from FEIS North 49 Health Recovery Project, Lassen National Forest, References Cited, p. 346, April 2008.